

APR 09 2009

Appl. No. 10/673,358
Response dated April 9, 2009
Reply to Notice dated April 22, 2008

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-38 (cancelled).

Claim 39 (amended): Apparatus for bonding soft biological tissue having an incision therein, comprising:

forceps having first and second opposed arms mounted in a sleeve, the opposed arms being adapted to grip a portion of the tissue on both sides of the incision, the forceps having a pair of opposed arms mounted in sleeve at one end, and having another end configured for grasping between the opposed tips of said arms;

electrodes secured to tips of the opposed arms of said forceps, the electrodes being configured to grasp for contacting said tissue portion; and

an adjustable stop member mounted on an inside surface of the first opposed arm, the adjustable stop member being adapted to contact the second opposed arm, and when in contact to limit that limits the extent to which the forceps may be deformed;

a protuberance with a recessed surface for receiving a finger for clamping the forceps, the protuberance being located on an outside surface of one of the two opposed arms directly opposite the adjustable stop member;

the adjustable stop member preventing and prevents overexertion of pressure on grasped tissue by limiting the maximum force transferred to the tissue, despite increased pressure exerted on the forceps by a user, the stop member being adjustable to accommodate the bonding of tissues of varying thicknesses to provide tissue welding that forms a weld to reconnect the tissue.

Claim 40 (amended): A method for bonding soft biological tissue comprising:
selecting an The apparatus as claimed in of claim 39 having, wherein said
electrodes that are dimensioned to have a volume which is at least 5 times that of the
tissue portion volume;

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applying the apparatus to soft biological tissue having an incision therein: and
applying power to the apparatus to bond the soft biological tissue.

Claim 41 (amended): The apparatus of claim 39-40, wherein said electrodes are made of a metal with a high heat conductivity.

Claims 42-65 (canceled).

Claim 66 (currently amended): The apparatus of claim 39, wherein the adjustable stop member comprises a replaceable lug of selectable length positioned between the two arms of the forceps.

Claim 67 (amended): The apparatus of claim 39, wherein the adjustable stop member comprises a lug and one or more spacers positionable between the lug and the inside surface of the first opposed arm to accommodate the bonding of tissues of varying thicknesses.

Claim 68 (original): The apparatus of claim 39, wherein the adjustable stop member comprises an adjustable knob.

Claims 69 – 70 (canceled).

Claim 71 (amended): Apparatus for bonding soft biological tissue having an incision therein, comprising:

forceps having first and second opposed arms mounted in a sleeve, the opposed arms being adapted to grip a portion of the tissue on both sides of the incision, the forceps having a pair of opposed arms mounted in sleeve at one end, and having another end configured for grasping between the opposed tips of said arms;

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electrodes secured to tips of the opposed arms of said forceps, the electrodes being configured to grasp for contacting said tissue portion and provide tissue welding that forms a weld to reconnect the tissue; and

a lug that is removably mounted to an inside surface of the first opposed arm, the lug being adapted to contact the second opposed arm, and when in contact to limit step means for selectively limiting the extent to which the forceps may be deformed to provide tissue welding that forms a weld to reconnect the tissue, the lug step means further preventing the overexertion of pressure on grasped tissue by limiting the maximum force transferred to the tissue, despite increased pressure exerted on the forceps by a user.

Claim 72 (cancelled).

Claim 73 (amended): The apparatus of claim 71, further comprising wherein the step means comprises one or more spacers positionable between the lug and the inside surface of the first opposed arm to accommodate the bonding of tissues of varying thicknesses.

Claim 74 (amended): The apparatus of claim 71, further comprising wherein the step means comprises an adjustable knob mounted on the outside surface of the first opposed arm opposite the lug.

Claims 75 (cancelled): The apparatus of claim 71, wherein the stop means comprises an electromagnetic drive.

Claim 76 (cancelled): The apparatus of claim 75, wherein the electromagnetic drive is controlled by a computer.

Claim 77 (cancelled): Apparatus for bonding soft biological tissue having an incision therein, comprising:

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Forceps adapted to grip a portion of the tissue on both sides of the incision; electrodes secured to said forceps for contacting said tissue portion; and a stop member that has two selectable levels for limiting the extent to which the forceps may be deformed.

Claim 78 (cancelled): The apparatus of claim 77, wherein the forceps have two arms, and wherein the stop member comprises a lug, a pin, and spacers placed between the two arms of the forceps, the stop member further comprising an electromagnetic drive that adjusts the position of the pin.

Claim 79 (previously presented): The apparatus of claim 74, wherein the adjustable knob has a recessed surface for receiving a finger for clamping the forceps, the protuberance being located on an outside surface of one of the two opposed arms directly opposite the adjustable stop member.